

Title (en)

MULTIPLE-ACCESS MULTIPLE-INPUT MULTIPLE-OUTPUT (MIMO) COMMUNICATION SYSTEM

Title (de)

VIelfachzugriff Multiple-Input Multiple-Output Kommunikationssystem

Title (fr)

Système de communication à sorties multiples, à entrées multiples (MIMO) et à accès multiples

Publication

EP 1442538 A1 20040804 (EN)

Application

EP 02778726 A 20021105

Priority

- US 0235364 W 20021105
- US 99308701 A 20011106

Abstract (en)

[origin: WO03041300A1] Techniques to achieve better utilization of the available resources and robust performance for the downlink and uplink in a multiple-access MIMO system. Techniques are provided to adaptively process data prior to transmission, based on channel state information, to more closely match the data transmission to the capacity of the channel. Various receiver processing techniques are provided to process a data transmission received via multiple antennas at a receiver unit. Adaptive reuse schemes and power back-off are also provided to operate the cells in the system in a manner to further increase the spectral efficiency of the system (e.g., reduce interference, improve coverage, and attain high throughput). Techniques are provided to efficiently schedule data transmission on the downlink and uplink. The scheduling schemes may be designed to optimize transmissions (e.g., maximize throughput) for single or multiple terminals in a manner to meet various constraints and requirements.

IPC 1-7

H04B 7/06; **H04B 7/08**; **H04L 1/06**

IPC 8 full level

H04J 99/00 (2009.01); **H04B 7/04** (2006.01); **H04B 7/06** (2006.01); **H04B 7/08** (2006.01); **H04J 11/00** (2006.01); **H04L 1/00** (2006.01)

CPC (source: EP KR US)

H04B 7/0417 (2013.01 - EP KR US); **H04B 7/0452** (2013.01 - EP US); **H04B 7/0626** (2013.01 - EP KR US); **H04B 7/066** (2013.01 - EP KR US); **H04B 7/0689** (2013.01 - EP US); **H04B 7/0891** (2013.01 - EP KR US); **H04L 1/0026** (2013.01 - EP KR US); **H04L 1/0687** (2013.01 - KR); **H04L 1/0693** (2013.01 - KR); **H04L 1/0687** (2013.01 - EP US); **H04L 1/0693** (2013.01 - EP US)

Citation (search report)

See references of WO 03041300A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

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